Food Chemistry **46** (1993) 447–451

CONTENTS OF VOLUME 46

Number 1

Effect of dietary lipid and vitamin E supplementation on free radical production and lipid oxidation in porcine muscle microsomal fractions 1
F. J. MONAHAN (Ireland), J. I. GRAY, A. ASGHAR, A. HAUG, B. SHI, D. J. BUCKLEY (USA) & P. A. MORRISSEY (Ireland)

The mucilaginous polysaccharide material isolated from *ruredzo* (*Dicerocaryum zanguebarium*) . 7
MUDADI A. N. BENHURA & MAUD MARUME (Zimbabwe)

Floral-type identification and quality evaluation of some honey types 13
HAMZA M. ABU-TARBOUSH, HASSAN A. AL-KAHTANI & M. S. EL-SARRAGE (Saudi Arabia)

Moisture sorption isotherms and other physicochemical properties of nixtamalized amaranth flour 19
J. A. VALDEZ-NIEBLA, O. PAREDES-LÓPEZ, J. M. VARGAS-LÓPEZ & D. HERNÁNDEZ-LÓPEZ (Mexico)

Effect of domestic processing on oligosaccharide content of some dry legume seeds . . . 25
A. S. ABDEL-GAWAD (Egypt)

Dihydrochalcones from apple juices and jams 33
F. A. TOMÁS-BARBERÁN, C. GARCÍA-VIGUERA, J. L. NIETO, F. FERRES & F. TOMÁS-LORENTE (Spain)

Effect of pH and heat treatment on the mutagenic activity of peanut beverage contaminated with aflatoxin B_1 37
ISMAIL Y. S. RUSTOM, MIGUEL H. LÓPEZ-LEIVA & BABOO M. NAIR (Sweden)

Binding of Zn by three starchy legumes in the presence of Zn alone or with Fe, Ca, Mg and Cu . 43
SIRELKHATIM B. ELHARDALLOU & ANN F. WALKER (UK)

Estimation of protein in potato tissue by dye binding 49
WENBIAO WU (China) & ALAN L. LAKIN (UK)

Mobility of water in various sugar–water systems as studied by oxygen-17 NMR 55
HSI-MEI LAI & SHELLY J. SCHMIDT (USA)

Purification of an anionic peroxidase isoenzyme from mango (*Mangifera indica* L. var. *chaunsa*) . 61
A. A. KHAN & D. S. ROBINSON (UK)

Separation of the coloured reaction products formed in β-carotene and/or phenylalanine model systems 65
KIRIAKI PAPADOPOULOU & JENNIFER M. AMES (UK)

Thermal degradation of betanine in various water alcohol model systems 73
ROLANDO C. ALTAMIRANO, MILAN DRDÁK, PETER ŠIMON, ALICA RAJNIAKOVÁ, JOLANA KAROVIČOVÁ & L'UBOMIR PRECLÍK (Czechoslovakia)

Research Notes

Characterization of mutagenic compounds in heated orange juice by UV and mass spectra . . 77
INDRIATI EKASARI (USA), R. H. FOKKENS, M. H. BONESTROO, H. A. SCHOLS, N. M. M. NIBBERING & W. PILNIK (Netherlands)

Changes during ripening of papaya fruit in different storage systems 81
Mª. M. CÁMARA, C. DÍEZ & Mª. E. TORIJA (Spain)

ANALYTICAL METHODS SECTION

Direct potentiometric determination of fluoride in beverages. Comparative study of different buffering solutions 85
M. MA. MARTÍN DELGADO, A. HARDISSON DE LA TORRE & R. ÁLVAREZ MARANTE (Spain)

Food Chemistry **46** (1993)—© 1993 Elsevier Science Publishers Ltd, England. Printed in Great Britain

Cholesterol and fat contents of animal adipose tissues 89
HAMZA M. ABU-TARBOUSH & ABDELBARY A. DAWOOD (Saudi Arabia)

Determination of iodide in table salt by flow injection analysis using Pyrocatechol Violet . . 95
A. CERDÀ, R. FORTEZA & V. CERDÀ (Spain)

Technical Note
New spectrophotometric methods for the determination of di-*t*-butyl hydroquinone . . . 101
C. S. P. SASTRY, S. GOPALA RAO & B. S. SASTRY (India)

Bibliography on analytical food chemistry 105

Book reviews 113

Number 2

Effect of irradiation on volatile oils of black pepper 115
J. R. PIGGOTT & Z. OTHMAN (UK)

Low molecular weight coloured compounds formed in xylose-lysine model systems . . . 121
J. M. AMES, A. APRIYANTONO (UK) & A. ARNOLDI (Italy)

The development and control of colour in extrusion cooked foods 129
S. SGARAMELLA & J. M. AMES (UK)

The temperature dependence of the rate of extraction of soluble constituents of black tea . . 133
W. E. PRICE & J. C. SPITZER (Australia)

Evaluation of a static headspace gas chromatographic method for the determination of lipid peroxidases 137
F. ULBERTH & D. ROUBICEK (Austria)

Protein and uric acid contents of cereal grains as affected by insect infestation 143
S. JOOD & A. C. KAPOOR (India)

Solute–solvent interactions and the sweet taste of small carbohydrates. Part II: Sweetness intensity and persistence in ethanol–water mixtures 147
T. HOOPMAN, G. BIRCH (UK), S. SERGHAT, M.-O. PORTMANN & M. MATHLOUTHI (France)

Influence of water activity on the stability of betanin in various water/alcohol model systems. . 155
P. ŠIMON, M. DRDÁK & R. C. ALTAMIRANO (Czechoslovakia)

In vitro protein digestibility of *Leucaena leucocephala* seed kernels and protein isolate . . . 159
P. SETHI & P. R. KULKARNI (India)

The mineral and trace element composition of vegetables, pulses and cereals of southern India . 163
T. S. SRIKUMAR (Sweden)

Chemical and physical properties of yellow mustard (*Sinapis alna* L.) mucilage 169
W. CUI, N. A. M. ESKIN & C. G. BILIADERIS (Canada)

Photosensitized decomposition of ascorbic acid in the presence of riboflavin 177
F. ŞAHBAZ & G. SOMER (Turkey)

Effect of processing variables on the characteristics of persimmon liquer 183
S. GORINSTEIN, R. MOSHE, M. WEISZ, J. HILEVITZ, K. TILIS, D. FEINTUCH, D. BAVLI & D. AMRAM (Israel)

Research Note
Composition of the pecan truffle (*Tuber texense*) 189
L. R. BEUCHAT, T. B. BRENNEMAN & C. R. DOVE (USA)

ANALYTICAL METHODS SECTION

Infrared spectrophotometric determination of citral corrected for limonene interference in lemon and orange essential oils 193
P. LÓPEZ MAHÍA, J. S. GÁNDARA & P. LOSADA (Spain)

First BCR-intercomparison on the determination of folates in food 199
P. M. FINGLAS (UK), U. FAURE (Belgium) & D. A. T. SOUTHGATE (UK)

Bibliography on analytical food chemistry 215

Book reviews 222

Number 3

The fate of nitrite in food processing: isolation of dinuclear and tetranuclear iron-sulphur nitrosyl complexes from cysteine and methionine sources 225
C. GLIDEWELL & S. M. GLIDEWELL (UK)

Nutrient composition of corn OGI prepared by a slightly modified traditional technique . . 231
C. Y. AREMU (Nigeria)

Molecular mechanisms of sweet taste 3: aspartame and its non-sweet isomers. 235
T. SUAMI (Japan) & L. HOUGH (UK)

Food value of lesser utilised tropical plants 239
H.-H. YEOH & P.-F. M. WONG (Singapore)

Nutritive composition of Al-Nokel grape fragments and the potentiality of making evaporator-concentrate 243
E. H. EWAIDAH (Saudi Arabia)

The influence of roasting and malting on the total and extractable mineral contents of human weaning mixtures prepared from Indian raw materials 253
P. GAHLAWAT & S. SEHGAL (India)

Effect of fermentation and drying practices on the chemical and physical profiles of Ghana cocoa 257
K. I. TOMLINS, D. M. BAKER, P. DAPLYN (UK) & D. ADOMAKO (Ghana)

Cochineal as a colorant in processed pork meat. Colour matching and oxidative stability . . 265
H. L. MADSEN, H. STAPELFELDT, G. BERTELSEN & L. H. SKIBSTED (Denmark)

Synthesis of some heterocyclic amino-imidazoazarenes 273
B. L. MILIĆ, S. M. DJILAS & J. M. ČANADANOVIĆ-BRUNET (Yugoslavia)

Oil extractability from enzymatically treated soybean and sunflower: range of operational variables . 277
H. DOMÍNGUEZ, M. J. NÚÑEZ & J. M. LEMA (Spain)

Study of the carbohydrate fraction of the principal varieties of Tarragona hazelnuts (*Corylus avellana* L.) 285
J. S. BONVEHÍ & F. V. COLL (Spain)

Pectin changes during the development and ripening of eggplant fruits 289
R. M. ESTEBAN, F. J. LOPEZ-ANDREU, M. A. MARTIN-CABREJAS & E. MOLLA (Spain)

Research Notes

The effect of microwave heating on retention of some B vitamins 293
R. UHEROVÁ, B. HOZOVÁ & V. SMIRNOV (Czechoslovakia)

Nutritional constituents of the seeds of the African pear, *Dacryodes edulis* 297
N. B. B. OBASI & N. P. OKOLIE (Nigeria)

ANALYTICAL METHODS SECTION

Fluorimetric flow-injection determination of hydroperoxides in foodstuffs 301
T. PÉREZ-RUIZ, C. MARTÍNEZ-LOZANO, V. TOMÁS & O. VAL (Spain)

Rapid determination of calcium, magnesium, iron and zinc in flours using flow injection flame atomic absorption spectrometry for slurry atomization 307
P. VIÑAS, N. CAMPILLO, I. LÓPEZ GARCÍA & M. HERNÁNDEZ CÓRDOBA (Spain)

Determination of cholecalciferol in meat and fat from livestock fed normal and excessive quantities of vitamin D 313
J. N. THOMPSON & L. PLOUFFE (Canada)

Precolumn phenylisothiocyanate derivatization and liquid chromatography of free amino acids in biological samples 319
S. R. HAGEN, J. AUGUSTIN, E. GRINGS & P. TASSINARI (USA)

Bibliography on analytical food chemistry 325

Book reviews 334

Number 4

The effect of nematicides on the nutritive value and functional properties of cowpea seeds (*Vigna unguiculata* L. Walp) 337
O. OLOAFE, Y. O. UMAR & G. O. ADEDIRAN (Nigeria)

Model reactions on roast aroma formation. XIII. The formation of some uncommon N-heterocyclic compounds and furans after roasting of tryptophan with reducing sugars and sugar degradation products. 343
W. BALTES & E. KNOCH (Germany)

Effect of processing (sprouting and/or fermentation) on sorghum and maize. I: Proximate composition, minerals and fatty acids 351
M. ASIEDU, R. NILSEN, Ø. LIE & E. LIED (Norway)

The conformational stability of a lipase from a psychrotrophic *Pseudomonas fluorescens* . . 355
A. MAKHZOUM, R. K. OWUSU & J. S. KNAPP (UK)

Chemical and sensory evaluation of fillets from Atlantic Salmon (*Salmo salar*) fed three levels of N-3 polyunsaturated fatty acids at two levels of vitamin E 361
R. WAAGBØ, K. SANDNES, O. J. TORRISSEN, A. SANDVIN & Ø. LIE (Norway)

Combined gas chromatography and sniffing port analysis of volatile compounds of mineral water packed in polyethylene laminated packages 367
J. P. H. LINSSEN, J. L. G. M. JANSSENS, J. P. ROOZEN &
M. A. POSTHUMUS (The Netherlands)

Composition of ghee (Samn Barri's) from cow's and sheep's milk 373
A. AL-KHALIFAH & H. AL-KAHTANI (Saudi Arabia)

Effects of cooking on the fatty acids of three freshwater fish species 377
J. J. ÅGREN & O. HÄNNINEN (Finland)

Effect of pH on pyrazine formation in glucose-glycine model systems 383
G. L. BEMIS-YOUNG, J. HUANG & R. A. BERNHARD (USA)

The micronutrient content of bovine whole milk powder: Influence of pasture feeding and season . 389
H. E. INDYK, R. LAWRENCE & D. BRODA (New Zealand)

Analysis of free sugar and dietary fibre of some vegetables of Bangladesh 397
N. NAHAR, M. MOSIHUZZAMAN & S. K. DEY (Bangladesh)

Effect of type of oxidation on beta-carotene loss and volatile products formation in model systems 401
M. BEATRIZ A. GLÓRIA (Brazil), E. A. GRULKE & J. I. GRAY (USA)

Nonprotein nitrogen compounds in harp seal (*Phoca groenlandica*) meat 407
F. SHAHIDI, J. SYNOWIECKI, E. DUNAJSKI & X. CHONG (Canada)

Research Note
Effect of malt milling energy, sedimentation rates and diastatic power measurement in sorghum selection. 415
O. O. LASEKAN (Nigeria)

ANALYTICAL METHODS SECTION

Simultaneous analysis of individual carotenoids, retinol, retinyl esters, and tocopherols in serum by isocratic non-aqueous reversed-phase HPLC 419
A. B. BARUA, H. C. FURR, D. JANICK-BUCKNER & J. A. OLSON (USA)

Determination of lactose by an enzymatic method 425
J. A. SÁNCHEZ-MANZANARES, M. R. FERNÁNDEZ-VILLACAÑAS, F. MARÍN-INIESTA & J. LAENCINA (Spain)

The determination and distribution of taurine in dairy products 429
D. C. WOOLLARD & H. E. INDYK (New Zealand)

Bibliography on analytical food chemistry 439

Book Reviews 445